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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,745	07/30/2003	Hee Bok Kang	40296-0034	8920
26633	7590	10/04/2004	EXAMINER	
HELLER EHRLMAN WHITE & MCAULIFFE LLP 1666 K STREET, NW SUITE 300 WASHINGTON, DC 20006				NGUYEN, DANG T
		ART UNIT		PAPER NUMBER
		2824		

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/629,745	KANG, HEE BOK	
	Examiner	Art Unit	
	Dang T Nguyen	2824	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 30 July 2003.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-15 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 15 is/are rejected.
 7) Claim(s) 1-14 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 30 July 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/30/03</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input checked="" type="checkbox"/> Other: <u>Search history</u> . |

DETAILED ACTION

1. This action is responsive to the following communications: the Application and the Information Disclosure Statement filed on July 30, 2003.
2. Claims 1 – 15 are pending in this case. Claims 1 and 15 are independent claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 15 is rejected under 35 U.S.C. 102(e) as being anticipated by Kasper, U.S. Patent No. 6,526,451 B2 - filed Sep. 30, 1998.

Figs. 1 and 2 of Kasper discloses a composite memory device, comprising: a plurality of memory devices (Fig. 2 [70 and 72]) configured to operate individually; a memory bus (Fig. 2 [76]) configured to transfer data among the plurality of memory devices (Col. 6 lines 47-50); and a plurality of memory controllers (Fig. 2 [74]) configured to control data transfer operation between the memory bus (Fig. 2 [76]) and a memory device (Fig. 2 [70 and 72]) among the plurality of the memory devices (Fig. 2 [70's and 72's]) respectively, wherein the plurality of memory devices (Fig. 2 [70's and 72's]) are controlled by an external memory controller (Fig. 2 [80]) to exchange data

with an external system bus (Fig. 2 [80] and [HOST SYSTEM BUS INTERFACE]) (Col. 6 lines 47 – 53), and when one of the plurality of memory devices (Fig. 2 [(70 and 72) of port 0]) exchanges data with the external system bus (Fig. 2 [80]), the rest memory devices (Fig. 2 [(70 and 72) of ports 1 – 3]) are allowed to exchange data via the memory bus (Fig. 2 [76]).

Allowable Subject Matter

4. Claims 1 - 14 are allowed.
5. The following is an examiner's statement of reasons for allowance:

With respect to claim 1, in addition to other elements in the respective claim, the prior art fails to teach or suggest “a second synchronous memory device configured to operate in a page mode; a first memory controller configured to control data transfer operation between the first memory device and the memory bus; a second memory controller configured to control data transfer operation between the second memory device and the memory bus; and a third memory controller configured to control data transfer operation between the third memory device and the memory bus”.

Prior art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Anderson et al. Patent No. US 6,765,812 B2 Date of patent: Jul. 20, 2004

Le et al. Patent No. 6,079,001 Date of Patent: Jun. 20, 2000

Silver et al. Patent No. US 6,629,185 B1 Date of Patent: Sep. 30, 2003

Contact Information

7. Any inquiry concerning this communication from the examiner should be directed to Dang Nguyen, who can be reached by telephone at (571) 272-1955. Normal contact times are M-F, 8:00 AM - 4:30 PM.

Upon an unsuccessful attempt to contact the examiner, the examiner's supervisor, Richard Elms, may be reached at (571) 272-1869.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, whose telephone number is (703) 305-3900. The faxed phone number for organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the Status of an application may be obtained from the patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or EBC@uspto.gov.

Dang Nguyen 10/1/2004



RICHARD ELMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

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